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For: FEEDTHROUGH APPARATUS WITH NOBLE METAL-COATED LEADS

Remarks

The Final Office Action mailed November 9, 2009 has been received and reviewed. No claims have been amended, canceled or presented in this response, leaving claims 1-5, 7-14, 16, 18-24, 26-36, 38, 40-48, 50-57, 59, 61-65, and 68-72 pending in this application.

Reconsideration and withdrawal of the rejections are respectfully requested.

The 35 U.S.C. §103 Rejections

Claims 1, 2, 5, 7-14, 16-22, 25-36, 38-45, 48-57, and 59-65

Claims 1, 2, 5, 7-14, 16-22, 25-36, 38-45, 48-57, and 59-65 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson et al. (U.S. Patent No. 6,008,980 – hereinafter Stevenson '980) and in view of Dahlberg et al. (U.S. Patent No. 5,245,999). Applicants respectfully traverse this rejection and the assertions made in support of it.

At the outset, Applicants note that, of the claims identified as rejected, claims 17, 25, 39, 49, and 60 were canceled earlier in prosecution of this application. As a result, Applicants respectfully submit that this rejection is moot as applied to the canceled claims and that the list of pending claims subject to this rejection should read: 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65.

Among the rejected claims, independent claims 1, 22, 44, and 65 all recite, *inter alia*, a feedthrough assembly having a terminal extending through a ferrule. A first conductive metal coating of a refractory metal is provided on the first end of the terminal. A second conductive metal coating is provided over the first conductive metal coating on the first end of the terminal and at least a portion of the outer surface of the ferrule. The second conductive metal coating is a noble metal or a noble metal alloy.

Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and

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61-65 because the assertions made as to why one of ordinary skill in the art would modify Seifried et al. in view of Stevenson '980 are not supported by the references themselves.

In particular, the following assertion is made in support of the proposed modification of Seifried et al. in view of Stevenson '980: "It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Seifried with a second metallic coating of a noble metal, where the first coating serves as an adhesive as taught by Stevenson, since such modification would provide the predictable results of a second metallic coating of a noble metal, where the first metal serving as an adhesive provides for displacement of surface oxidation and providing for greater conductive contact and increased depositing of the second coating." Office Action, page 3, ¶ 5, November 9, 2009.

The asserted reason as to why one of ordinary skill in the art would modify the teachings of Seifried et al. in view of Stevenson '980 is not, however, supported by Stevenson '980. In particular, it is asserted in support of this rejection that Stevenson '980 teaches a combination of metal layers that includes a first adhesive layer "to displace surface oxide and provide for greater conductive contact and increased depositing of the second coating." *Office Action*, page 3, ¶ 5, November 9, 2009. Applicants respectfully submit that Stevenson '980 does not, however, actually teach that the metal coatings provide the functions attributed to them in the Office Action. The only support for the assertions made in the Office Action is at column 7, lines 1-14 of Stevenson '980 which is reproduced below:

the feedthrough capacitor 34 is illustrated in greater detail. To effect the first hermetic seal joint, a first metallization layer 64 is applied to the ceramic housing 36 adjacent to the upper end of the passageway 42. A metal braze 66 is then applied over the metallization layer 64 to conductively couple and mechanically attach the terminal pin 30 to the metallization layer 64. More particularly, the metallization layer 64 is created by first sputtering down an adhesion layer such as titanium. Next nickel is sputtered or electroplated over the adhesion layer. Finally, and especially in the case of a medical implant application, gold is sputtered or electroplated over the nickel. Alternatively, the

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metallization layer 64 may be deposited by plasma/electric arc discharge or electro-plating techniques. Stevenson '980, column 7, lines 1-14.

No support is found in the above-cited passage for the assertions made and relied on to support the obviousness rejection of claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65. Nor, Applicants respectfully submit, can support for the assertions be found anywhere else in Stevenson '980 (or the other references cited in support of this rejection).

In the absence of support for the assertions made with respect to what is actually taught by Stevenson '980, Applicants submit that a *prima facie* case of obviousness cannot be supported by the cited references because no reasoning (e.g., motivation, suggestion, desirability, etc.) has been provided to show why one of ordinary skill in the art would make the proposed modification.

For at least these reasons, Applicants respectfully submit that a *prima facie* case of obviousness has not been established by the combination of Seifried et al. in view of Stevenson '980 and Dahlberg et al.

Applicants do note that, in making this rejection, it is asserted that the functions purportedly provided by the metal coatings are "predictable results." *Office Action*, page 3, ¶ 5, November 9, 2009. If, based on that assertion, it is the intent of the Examiner to rely on some asserted inherent properties with respect to the metal coatings of Seifried et al. and Stevenson '980, then Applicants respectfully submit that the standards for a rejection based on inherency have not been met.

"The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." M.P.E.P. § 2112(IV), p. 2100-47, 8th Ed., Rev. 6, (Sept. 2007) (emphasis in original) (citing In re Rijckaert, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993)). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of

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the applied prior art." *Id.* at p. 2100-48 (citing *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)).

In the present rejection, no facts or technical reasoning have been provided to establish that the proposed modifications to the metal coatings of Seifried et al. in view of Stevenson '980 would necessarily provide the properties upon which this obviousness rejection is based (e.g., displacement of surface oxidation, greater conductive contact, increased depositing of the second coating, etc.).

For at least the reasons presented herein, Applicants respectfully submit that the asserted combination of Seifried et al., Stevenson '980, and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 7-8, 26-27, and 50-51

In addition to the reasons presented above with respect to all of rejected claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65, Applicants also submit that a *prima facie* case of obviousness has not been established with respect to pending claims 7-8, 26-27, and 50-51 because the assertions made in support of the rejection of these claims are not supported by the cited references. In particular, it is asserted that one of ordinary skill would have been motivated "to substitute either rhodium or ruthenium as the conductive metal coating since such modification would provide the predictable results of minimizing and controlling the growth of oxidation on the terminal " Office Action, pages 5-6, ¶ 11, November 9, 2009.

That assertion is not, however, supported by any of the references relied on in support of the obviousness rejection of claims 7-8, 26-27, and 50-51 (which, as admitted in the Office Action do not disclose the use of rhodium or ruthenium as a metal coating).

Furthermore, if, in place of explicit support, it is the intent of the Examiner to rely on some asserted inherent properties with respect to metal coatings of rhodium or ruthenium, then

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Applicants respectfully submit that the standards for a rejection based on inherency have not been met. Specifically, no facts or technical reasoning have been provided to establish that coatings of rhodium or ruthenium, in combination with all of the other elements recited in the claims would necessarily provide the properties upon which this obviousness rejection is based (e.g., "minimizing and controlling the growth of oxidation on the terminal").

As a result, Applicants respectfully submit that the asserted combination of Seifried et al., Stevenson '980, and Dahlberg et al. does not establish a *prima facie* case of obviousness with respect to claims 7-8, 26-27, and 50-51. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 17, 39, and 60

In addition to the reasons presented above with respect to all of rejected claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65, Applicants also submit that a *prima facie* case of obviousness has not been established with respect to pending claims 17, 39, and 60 because the assertion made in support of the rejection of these claims is not supported by the cited references. In particular, it is asserted that "Stevenson et al. [U.S. Patent No. 6,008,980] discloses that the second conductive coating is a noble metal (gold)." *Office Action*, page 6, ¶ 14, November 9, 2009.

That assertion is not, however, supported by Stevenson '980 which, instead, discloses the use of nickel as the second conductive coating between the underlying titanium layer and a gold layer. See, e.g., Stevenson '980, column 7, lines 7-14 and 30-35.

As a result, Applicants respectfully submit that a *prima facie* case of obviousness with respect to claims 17, 39 and 60 has not been established. Reconsideration and withdrawal of the obviousness rejection of claims 17, 39 and 60 are, therefore, respectfully requested.

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Claims 18-19, 40-41, and 62-63

In addition to the reasons presented above with respect to all of rejected claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65, Applicants also submit that a prima facie case of obviousness has not been established with respect to pending claims 18-19, 40-41, and 62-63 because the assertions made in support of the rejection of these claims are not supported by the cited references. In particular, it is asserted that "Stevenson et al. [U.S. Patent No. 6,008,980] discloses that since the ferrule is often formed of a material susceptible to oxidation, such a coating helps guarantee a long term electrical connection will remain oxide free, but fails to specifically disclose that the conductive coating may be titanium or niobium." Office Action, page 6, ¶ 15, November 9, 2009.

That assertion is not, however, supported by Stevenson '980. In fact, Stevenson '980 is silent as to any issues regarding oxidation of ferrules or any other components.

Nor does Stevenson '980 disclose or suggest the use of niobium as a metal coating as recited in rejected claims 19, 41, and 62.

For at least these reasons, Applicants respectfully submit that a *prima facie* case of obviousness with respect to claims 18-19, 40-41, and 62-63 has not been established.

Reconsideration and withdrawal of the obviousness rejection of claims 18-19, 40-41, and 62-63 are, therefore, respectfully requested.

Claims 3, 23, 46, 68, 70, and 72

Claims 3, 23, 46, 68, 70, and 72 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson (U.S. Patent No. 6,159,560 – hereinafter Stevenson '560) and Dahlberg et al. (U.S. Patent No. 5,245,999) as applied above, and further in view of Pless et al. (U.S. Patent No. 5,131,388).

At the outset, the patent to Stevenson et al. cited in support of the obviousness rejection of claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 (i.e., U.S. Patent No. 6,008,980) is not the same patent to Stevenson et al. relied on in support of this obviousness

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rejection of claims 3, 23, 46, 68, 70, and 72 (i.e., U.S. Patent No. 6,159,560). As a result, reliance on Seifried et al. in view of Stevenson '560 and Dahlberg et al. "as applied above" is not a proper basis for this obviousness rejection. For at least this reason, Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 3, 23, 46, 68, 70, and 72.

In addition, however, claims 3, 23, and 46 depend, respectively, from independent claims 1, 22, and 44. If it was the Examiner's intention to reject claims 3, 23, 46, 68, 70, and 72 as obvious over Seifried et al. in view of Stevenson '980, Dahlberg et al. and Pless et al., Applicants respectfully submit that, as discussed above, a prima facie case of obviousness has not been established with respect to claims 1, 22, and 44. Applicants further submit that Pless et al. does not address the shortcomings of that primary obviousness rejection and, for at least that reason, the asserted obviousness rejection of dependent claims 3, 23, and 46 also does not meet the requirements for a prima facie case of obviousness.

With respect to independent claims 68, 70 and 72, the discussion provided above in connection with the asserted obviousness rejection of claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 in view of the combination of Seifried et al., Stevenson '980 and Dahlberg et al. applies equally as well to claims 68, 70 and 72. As noted above, the combination of Seifried et al., Stevenson '980 and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 and Pless et al. does not address the shortcomings of that asserted obviousness rejection. For at least these reasons, Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 68, 70 and 72 over the combination of Seifried et al., Stevenson '980 and Dahlberg et al.

For at least the reasons provided above, Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 3, 23, 46, 68, 70, and 72 over the combination of Seifried et al., Stevenson '560 (or Stevenson '980), Dahlberg et al., and Pless

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et al. Reconsideration and withdrawal of the obviousness rejection of claims 3, 23, 46, 68, 70, and 72 are, therefore, respectfully requested.

Claims 4, 24, 47, 68, 69, 71, and 72

Claims 4, 24, 47, 68, 69, 71, and 72 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson (U.S. Patent No. 6,159,560 – hereinafter Stevenson '560) and Dahlberg et al. (U.S. Patent No. 5,245,999) as applied above, and further in view of Langer (U.S. Patent No. 4,254,775).

As above, the patent to Stevenson et al. cited in support of the obviousness rejection of claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 (i.e., U.S. Patent No. 6,008,980) is not the same patent to Stevenson et al. relied on in support of this obviousness rejection of claims 4, 24, 47, 68, 69, 71, and 72 (i.e., U.S. Patent No. 6,159,560). As a result, reliance on Seifried et al. in view of Stevenson '560 and Dahlberg et al. "as applied above" is not a proper basis for this obviousness rejection. For at least this reason, Applicants respectfully submit that a prima facie case of obviousness has not been established with respect to claims 4, 24, 47, 68, 69, 71, and 72.

In addition, however, claims 4, 24, and 47 depend, respectively, from independent claims 1, 22, and 44. If it was the Examiner's intention to reject claims 4, 24, 47, 68, 69, 71, and 72 as obvious over Seifried et al. in view of Stevenson '980, Dahlberg et al. and Langer, Applicants respectfully submit that, as discussed above, a prima facie case of obviousness has not been established with respect to claims 1, 22, and 44. Applicants further submit that Langer does not address the shortcomings of that primary obviousness rejection and, for at least that reason, the asserted obviousness rejection of dependent claims 4, 24, and 47 also does not meet the requirements for a prima facie case of obviousness.

With respect to independent claims 68, 69, 71, and 72, the discussion provided above in connection with the asserted obviousness rejection of claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 in view of the combination of Seifried et al., Stevenson '980 and

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Dahlberg et al. applies equally as well to claims 68, 69, 71, and 72. As noted above, the combination of Seifried et al., Stevenson '980 and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-65 and Langer does not address the shortcomings of that asserted obviousness rejection. For at least these reasons, Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 68, 69, 71, and 72 over the combination of Seifried et al., Stevenson '980, Dahlberg et al., and Langer.

For at least the reasons provided above, Applicants respectfully submit that a *prima* facie case of obviousness has not been established with respect to claims 4, 24, 47, 68, 69, 71, and 72 over the combination of Seifried et al., Stevenson '560 (or Stevenson '980), Dahlberg et al., and Langer. Reconsideration and withdrawal of the obviousness rejection of claims 4, 24, 47, 68, 69, 71, and 72 are, therefore, respectfully requested.

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Summary

It is respectfully submitted that the pending claims 1-5, 7-14, 16, 18-24, 26-36, 38, 40-48, 50-57, 59, 61-65, and 68-72 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives at the telephone number listed below if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that this paper is being transmitted via the U.S. Patent and Trademark Office electronic filing system in accordance with 37 CFR §1.6(a)(4) to the Patent and Trademark Office addressed to Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this day of March, 2010.

Name: Och Schurman